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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,136	10/03/2001	Takayuki Toshima	199372003500	4069

25224 7590 03/12/2004
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EXAMINER

STINSON, FRANKIE L

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/971,136

Applicant(s)

TOSHIMA ET AL.

Examiner

FRANKIE L. STINSON

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-16 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 10, 11, 13, 14, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 18-21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) = ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 10 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Blackwood et al. (U. S. Pat. No. 4,749,440).

For example, note that Blackwood'440 discloses a substrate processing apparatus for processing a substrate held in a vessel (10) with a process gas (17) and a solvent vapor feed (19) fed to the substrate, the apparatus comprising a processing gas (17) feed system, a solvent vapor gas feed system (19), a nitrogen gas feed pipe (16), wherein nitrogen gas flow rate gas control valve (32) is inserted in said nitrogen gas feed pipe; and a central controller (as at 18.2, 41.1, 32.1, 33.1, 21.1, 23.1, 43, 32, 33) means for controlling the flow rate of the nitrogen, processing gas and solvent vapor (see col. 9, lines 30-49) . As for the as for the etching of the substrate and the non-etching of the substrate, clearly this is dependent upon the concentration of the gases in the vessel, clearly inherent in Blackwood'440. Also, note.... Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). “[A]pparatus claims cover what a device is, not what a device does.” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). (emphasis in original).

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackwood'440 in view of either Tanaka et al. (U. S. Pat. No. 5,248,380) or Yoneda.

Claim 11 defines over Blackwood'440 only in the recitation of the processing gas being ozone gas. Tanaka'380 and Yoneda are both cited disclosing in a substrate processing apparatus, the arrangement of employing a process gas, in which the processing gas is ozone gas. It therefore would have been obvious to one having ordinary skill in the art to modify the hydrogen fluoride (HF) gas employed by Blackwood'440 to be ozone gas as taught by either Tanaka'380 or Yoneda, since Yoneda (see col. 4, lines 40-50) and Tanaka (see col. 4, line3-11) both disclose that hydrogen fluoride (HF) gas and ozone may be interchangeable with each other for the use in treating (etching/cleaning) substrates. Re claim 14, Tanaka and Yoneda disclose the processing gas system feeding ozone gas or a base gas of ozone via an ozone gas generator as claimed.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blackwood'440 in view of Shindo et al. (U. S. Pat. No. 5,845,660).

Claim 13 defines over Blackwood'440 only in the recitation of the adjusting exhaust for removing gas from the process vessel. Shindo'660 discloses an adjustable exhaust device (33) for removing gases from a process vessel. It therefore would have been

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obvious to one having ordinary skill in the art to modify the device of Blackwood'440, to include an adjustable exhaust as taught by Shindo, for the purpose of controlling the reaction time of the gas in process vessel and for quickly removing used gases after their use/step is completed. Also note Tanaka as at (col.6, lines 16-24)

6. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackwood et al.'440 in view of either Tanaka et al.'380 or Yoneda.

Re claim 16, the patents to Blackwood'440, Tanaka and Yoneda are cited as applied to the subject matter of claim 11 above. Re claim 16, Blackwood'440, Tanaka and Yoneda disclose the vessel body, cover and tight seal members.

7. Claims 18-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Applicant's arguments with respect to claims 10, 11, 13, 14-16 and 18-21 have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In Japan'927, Higashi, DeGendt et al., Sakai et al., EPO'177, Tanaka et al.'333, Staho and Nakajima et al., note the gas supplying means.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANKIE L. STINSON whose telephone number is (571) 272-1308. The examiner can normally be reached M-F from 5:30 a.m. to 2:00 p.m. and some Saturdays from 5:30 a.m. to 11:30 a.m.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to TECHNOLOGY CENTER 1700 (571) 272-1700.

Any inquiry for missing parts of this Office Action (copies of references, pages, forms etc.), contact the TEAM LEADER Ms. Nicol Scott (571) 272-1045.

fls



FRANKIE L. STINSON
Primary Examiner
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